



Using Data for Action Planning to More Deeply Implement the *High Schools That Work* Design

Mean Score Analysis Guide

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HSTW KEY PRACTICES

- **High expectations** – setting higher expectations and getting more students to meet them.
- **Vocational studies** – increasing access to intellectually challenging vocational and technical studies, with a major emphasis on using high-level mathematics, science, language arts and problem-solving skills in the modern workplace and in preparation for continued learning.
- **Academic studies** – increasing access to academic studies that teach the essential concepts from the college preparatory curriculum by encouraging students to use academic content and skills to address real-world projects and problems.
- **Program of study** – having students complete a challenging program of study with an upgraded academic core and a major.
- **Work-based learning** – giving students and their parents the choice of a system that integrates school-based and work-based learning. The system should span high school and postsecondary studies and should be planned by educators, employers and employees.
- **Teachers working together** – having an organization, structure and schedule giving academic and vocational teachers the time to plan and deliver integrated instruction aimed at teaching high-level academic and technical content.
- **Students actively engaged** – getting every student involved in rigorous and challenging learning.
- **Guidance** – involving each student and his or her parents in a guidance and advising system that ensures the completion of an accelerated program of study with an in-depth academic or vocational-technical major.
- **Extra help** – providing a structured system of extra help to enable students who may lack adequate preparation to complete an accelerated program of study that includes high-level academic and technical content.
- **Keeping score** – using student assessment and program evaluation data to improve continuously the school climate, organization, management, curricula and instruction to advance student learning and to recognize students who meet both curriculum and performance goals.

2006 HSTW Assessment Report Q&A

Question	Page	Answer/Description
What are the performance goals? What do they mean?	iii.	Reading = 279; Mathematics = 297; Science = 299
What does “High Scoring Sites in Your Category” mean?	iv	A: Minority pop $\geq 30\%$ & at least 60% a Parent “some” ed ^ HS B: Minority pop $\geq 30\%$ & $< 60\%$ a Parent ed ^ HS C: Minority pop $< 30\%$ & at least 60% a Parent “some” ed ^ HS D: Minority pop $< 30\%$ & $< 60\%$ a Parent ed ^ HS
Indices – What classroom and school practices do our students report experiencing?	1-12	“Site” & “High Scoring in Your Category”: % students report experiencing effective practices across 11 indices of effective instructional practices (<i>i.e. High Expectations, Literacy, Extra Help</i>) & mean scores in all 3 subjects
Benchmarks – What percent of “All” & “CT” students at this school report experiencing the instructional practices that make a difference in learning? What is the goal?	13-14	Overview; Meeting Performance Goals; Setting a Clear Mission and Vision for Success
	15-17	High Expectations
	17-19	Perceived Importance of High School Studies
	20-21	Providing Quality Extra Help
	22-25	Program of Study
	25-29	Career/Technical Studies
	29- 30	Work-based Learning
	31-32	English Curriculum/Literacy Across the Curriculum
	33-34	Mathematics Curriculum/Numeracy Across the Curriculum
	35-36	Science Curriculum/Engaging Science Experiences
	36-37	Teachers: Engaging Strategies for All Teachers
	37	Teachers: Teachers Working Together
	38-39	Integrating Academic Content
	39-42	Guidance
What percent of teachers report effective practices for continuous improvement at this school? What is the goal?	43	Teachers: Middle Grades/High School Transition
	43	Teachers: High School/Post-High School Transition
	44-45	Teachers: Continuous School Improvement
	45	Teachers: Strong Leadership
	45-46	Teachers: Supporting the Staff with Professional Development
HSTW Assessment and Student Survey Results – Report Summary for All Students and Career/Technical Completers	49-54	Summary of mean scores, performance goals, recommended curriculum, award, proficiency levels
	56-70	Reading achievement, curriculum and engaging students in learning
	72-85	Mathematics achievement, curriculum and engaging students in learning
	87-101	Science achievement, curriculum and engaging students in learning
Reports “site” data for 2006 and 2004/2005, “High-scoring Sites in your Category” and “All Sites”	103-119	Career/technical curriculum and engaging students in learning
	121-134	Raising expectations and student achievement
	136-144	Availability of extra help for students
	146-165	Guiding and supporting students
	167-177	Transition to and beyond high school

	179-192	Workplace experience
Teacher Survey Results – What do the teachers report about their instructional content and practices, school wide practices and the school’s focus on improving?	193-194	Implementation Focus Level Summary
	195-196	Having a functional mission
	197-198	Raising expectations and providing extra help
	199-208	Teaching challenging academic and technical content (math, science, English/language arts, career/technical, assessment techniques)
	209-211	Engaging high school students in learning
	212	Guiding and supporting students
	213-217	Helping students make successful transitions
	218-220	Supporting teachers in continuous school improvement
	221-222	Teachers’ perception of continuous school improvement
Appendix – Test content Test administration Proficiency levels	224-225	Reading Test Content
	225-226	Mathematics Test Content
	226	Science Test Content
	227	Assessment Content : Percentages of items by category
	228	Test administration
	228-229	Finding significant differences
	229-230	<i>HSTW</i> -Recommended Curriculum
	230-233	Proficiency levels Reading: Below Basic (0-261); Basic (262-287); Proficient (288-316); Advanced (317-500) Mathematics: Below Basic (0-296); Basic (297-327); Proficient (328-348); Advanced (349-500) Science: Below Basic (0-298); Basic (299-325); Proficient (326-351); Advanced (352-500)
Results Finder – Find the location of specific indicators	234-239	Results finder – student survey question index

Note – **This is the *High Schools That Work* Assessment. It is NOT the National Assessment of Educational Progress (NAEP).** Our assessment subject tests are based on the NAEP but this assessment is NOT the NAEP. Visit the NAEP website (<http://nces.ed.gov/naep3/>) for more information on this assessment.

Directions: In preparation for the data workshop, assemble a team to complete this workbook and the SREB publication *Establishing Benchmarks for New and Maturing HSTW Sites*. In order to fill out the benchmarks document, you will need either an electronic or hard copy of your 2006 *HSTW* Assessment Report. You will need to bring **at least one printed copy** of your *HSTW* Assessment Report to the workshop. The information needed for the Benchmarks documents begins on page 13 in the Summary of Results on Indicators section. The items in the benchmark documents are in the same order as the tables that are found on pages 13 through 46. Completing the Benchmarks document will take an individual approximately 15 minutes. The Benchmark document looks primarily at the percentages of student responses on the *HSTW* Student Survey. Please note that some items found in the Benchmark document require a “yes” or “no” answer based on your understanding of actions and practices that are in place at your school. These items will have a yes or similar statement in the far right column.

If you have participated in the *HSTW* Assessment prior to 2006, you may want to use your 2002 or 2004 Assessment Reports as your baseline data. However, please note that the order of the indicators found in the Benchmark document does not align with those previous reports. You will need to go to the expanded tables that follow the Summary section to gather your historical data. This will take more time but will allow you to view the trends from your student perception data over time. The time you take to investigate your trend data is well invested.

After completing the Benchmarks document, please fill out the following data tables to provide your team with an “at a glance” view of student achievement at your site. These tables will be used along side the Benchmarks document to guide your team’s discussion as you work to identify gains and challenges. The tables in this document are identified by a topic number and name and provide the corresponding page numbers for similar data that is found in the Benchmarks document. Our workshop will be structured and sequence according to the numbered table topics.

Once you have completed both the Benchmarks and the Mean Score Analysis Guide, please make **one copy for each member of your team** to use during the workshop.

If you have questions or concerns about the preparation for this workshop, please contact Ivy Alford at ivy.alford@sreb.org or contact your state coordinator.

Topic 1: Painting a Picture of Student Learning: Analysis of *HSTW* and State Achievement Data
[These tables support the data for indicators 1 through 3 in the Benchmarks Document on Page 6.]

Table 1A: Summary of Mean Scores and Percentage of Students Meeting Performance Goals (Page 49)

- Record the mean score for your students in reading, mathematics and science in the column labeled “Site 2006” and the mean score for students in the high scoring category in the column labeled “High Scoring”. Please include your scores for 2004 if you participated in earlier assessments.
- Compare your current score to the *HSTW* goal for each subject area.
- If you are currently scoring above the goal, set a revised goal based on the proficiency ranges outlined below next to the existing *HSTW* Goals.

	Site 2004	Site 2006	High-Scoring	<i>HSTW</i> Goal
Reading				279
Mathematics				297
Science				299

Proficiency Ranges by Subject Area:

Reading:

Below Basic (Below 262)

Basic (262-287)

Proficient (288-316)

Advanced (317-500)

Mathematics:

Below Basic (Below 297)

Basic (297-327)

Proficient (328-348)

Advanced (349-500)

Science

Below Basic (Below 299)

Basic (299-325)

Proficient (326-351)

Advanced (352-500)

Table 1B: In which proficiency range do your 2006 mean scores for each subject area fall? (Use the Proficiency Ranges listed above)

	Proficiency Range
Reading	
Mathematics	
Science	

Table 1C: Percentage of Students Reaching the *HSTW* Goal (Page 49)

	Site 2004	Site 2006	High Scoring	<i>HSTW</i> Goal
Reading				85%
Mathematics				85%
Science				85%

Tables 1 D-F: Percentage of Students Performing within Each Proficiency Level (Page 54)

Table 1D: Reading

	Site 2004	Site 2006	High Scoring
Below Basic			
Basic (262-287)			
Proficient (288-316)			
Advanced (317-500)			

Table 1E: Mathematics

	Site 2004	Site 2006	High Scoring
Below Basic			
Basic (297-327)			
Proficient (328-348)			
Advanced (349-500)			

Table 1F: Science

	Site 2004	Site 2006	High Scoring
Below Basic			
Basic (299-325)			
Proficient (326-351)			
Advanced (352-500)			

Tables 1 G-I: Student Group Comparison of Reading, Mathematics and Science Achievement.

Table 1G: Reading (Pages 56 and 57)

Reading Achievement by Group at Your School			
<i>HSTW Goal—279</i>			
	Percent of Population	Mean Reading Score	Percent Meeting Performance Goal
All Students	100%		
Female			
Male			
White			
African-American			
Latino, Hispanic			
Other Minority			
Multiracial			
Source: 2006 <i>HSTW</i> Assessment Report, Page 56 (For Columns 1 and 2) 2006 <i>HSTW</i> Assessment Report, Page 57 (For Column 3)			

Table 1H: Mathematics (Pages 72 and 73)

Mathematics Achievement by Group at Your School			
<i>HSTW Goal—297</i>			
	Percent of Population	Mean Mathematics Score	Percent Meeting Performance Goal
All Students	100%		
Female			
Male			
White			
African-American			
Latino, Hispanic			
Other Minority			
Multiracial			
Source: 2006 <i>HSTW</i> Assessment Report, Page 72 (For Columns 1 and 2) 2006 <i>HSTW</i> Assessment Report, Page 73 (For Column 3)			

Table 1I: Science (Pages 87 and 88)

Science Achievement by Group at Your School			
<i>HSTW Goal—299</i>			
	Percent of Population	Mean Science Score	Percent Meeting Performance Goal
All Students	100%		
Female			
Male			
White			
African-American			
Latino, Hispanic			
Other Minority			
Multiracial			
Source: 2006 <i>HSTW</i> Assessment Report, Page 87 (For Columns 1 and 2) 2006 <i>HSTW</i> Assessment Report, Page 88 (For Column 3)			

Table 1J: Connecting *HSTW* Achievement Data to Site Data (Gathered from School Reports)

School-Based Data	2004	2005	2006
State assessment data			
♦ Percentage of students meeting state performance goal			
♦ Percentage of students improving performance			
ACT and/or SAT			
♦ Percentage of students taking these exams			
♦ Composite scores			
♦ State and/or national scores			

Topic 2: Establishing a Need for Change—What Do Teacher Perceptions Tell Us About the Focus on School Improvement?

[Items below support the indicators for Setting a Clear Mission and Vision for Success that are found on Page 6 in the Benchmarks Documents. Additional teacher perception information to support Focusing on Continuous Improvement and Demonstrating Strong Leadership are found on Pages 22 and 23.]

Table 2A: Percentage of Faculty Members Identifying an Intensive Emphasis

Faculty Responses		
	Your Site	All Sites
Percentage of teachers who said the school has an intensive emphasis on the mission to prepare students for further learning. (Page 196)		
Percentage of teachers who said the school has an intensive emphasis on using assessment techniques to improve student learning. (Page 207)		
Percentage of teachers who said the school has an intensive emphasis on improving students' literacy skills. (Page 210)		
Percentage of teachers who said the school has an intensive emphasis on helping students make successful transitions from the middle grades to high school. (Page 214)		
Percentage of teachers who said the school has an intensive emphasis on supporting teachers in continuous improvement. (Page 219)		
Percentage of teachers who said the school has an intensive emphasis on teachers' perceptions of continuous improvement. (Page 222)		
Source: 2006 <i>HSTW</i> Assessment Report		

Topic 3: Getting Students to Take the *HSTW* Core and a Concentration

Table 3A: Percentage of Students Completing the *HSTW*-recommended Curriculum.

	Site 2006	Mean Scores for Curriculum Completers (Yes)	Mean Scores for Curriculum Non- Completers (No)	Goal	High Scoring
The percentage of students fully completing all parts of the <i>HSTW</i> -recommended curriculum (regardless of performance). (Page 52)	% Yes			85%	% Yes
• Mean reading score				279	
• Mean mathematics score				297	
• Mean science score				299	
The percentage of students completing four credits in college preparatory-level English. (Page 50)	% Yes			85%	% Yes
• Mean reading score				279	
The percentage of students completing four credits in college preparatory-level mathematics. (Page 50)				85%	
• Mean mathematics score				297	
The percentage of students completing three credits in science. (Page 51)	% Yes			85%	% Yes
• Mean science score				299	
The percentage of students completing three credits in social studies. (Page 51)	% Yes			85%	% Yes
• Mean reading score				299	

Table 3B: Percentage of Students Completing a Concentration (Page 53)

Group	Percent Completing	Reading Mean Scores	Mathematics Mean Scores	Science Mean Scores
CTE Concentration	Yes			
	No			
Mathematics/Science Concentration	Yes			
	No			
Humanities Concentration	Yes			
	No			

Table 3C: Completion of the Core vs. Performance (Page 6)

	Percentage of Students	Mean Reading Score (279)	Mean Mathematics Score (297)	Mean Science Score (299)
Fully Completed				
Partially Completed				
Did Not Complete				

Table 3D: Intensive Indicator Review—Do you have an emphasis that supports the core?

Percentage of Students with an Intensive Emphasis			
	Your School 2004	Your School 2006	High-scoring Sites in Your Category 2006
High Expectations			
Literacy			
Numeracy			
Engaging Science			
Recommended Curriculum			
Integrating Academic and CT			
Quality C/T Studies			
Quality Work-based Learning			
Timely Guidance*			
Importance of HS Studies			
Quality Extra Help	N/A		
Source: 2006 <i>HSTW</i> Assessment Report, Pages 1 – 12 2004 <i>HSTW</i> Assessment Report, Pages 1 – 11 *The composition of the guidance index changed from 2004 to 2006. Therefore results are not comparable. Take caution when interpreting differences between years.			

Topic 4: You Get What You Expect and Support (Review of High Expectations, Perceived Importance of High School and Extra Help)

[A review of the indicators on Pages 7-9 of the Benchmarks Document will be used for this discussion.]

Table 4: If time permits, please provide the following information from your SCHOOL DATA. All of the information listed below is typically used for school improvement purposes; some information may be located on your school report card. If you are unable to complete the following table, please provide each participant with a copy of your most recent school report card.

School-Based Data that Highlights Expectations:

Indicators—School-based Data	2004	2005	2006
Course failure rates			
♦ English 9			
♦ Algebra I			
♦ (Other core academic courses)			
Retention rate			
♦ Percentage of 9 th graders retained			
♦ Percentage of 10 th graders retained			
♦ Percentage of 11 th graders retained			
♦ Percentage of 12 th who do not graduate with their class			
Dropout data			
♦ Annually, by grade level			
♦ Graduation rate, number of entering ninth-graders who graduate with their class			
Disciplinary actions			
♦ Behavior referrals to the office			
♦ Detentions			
♦ Suspensions			
♦ Expulsions			

Topic 5: Quality Career/Technical and Work-Based Learning Programs—The Glue that Keeps Students in School

[Pages 12 and 13 in the Benchmarks Documents will also be reviewed.]

These charts will help to identify which programs of study have the highest student achievement.

Scan page 103 in your *HSTW* Assessment Report. Identify the top 7 Reading Mean Scores and their related program of study. Rank those scores in descending order to complete the table below.

Table 5A: Reading Performance by Career/Technical Program of Study

Type of Program	Percentage of Students Participating	Reading Mean Score	<i>HSTW</i> Goal	Difference Between Mean and the Goal +/-
			279	
			279	
			279	
			279	
			279	
			279	
			279	

Scan page 104 in your *HSTW* Assessment Report. Identify the top 7 Mathematics Mean Scores and their related program of study. Rank those scores in descending order to complete the table below.

Table 5B: Mathematics Performance by Career/Technical Program of Study

Type of Program	Percentage of Students Participating	Mathematics Mean Score	<i>HSTW</i> Goal	Difference Between Mean and the Goal +/-
			297	
			297	
			297	
			297	
			297	
			297	
			297	

Scan page 105 in your *HSTW* Assessment Report. Identify the top 7 Science Mean Scores and their related program of study. Rank those scores in descending order to complete the table below.

Table 5C: Science Performance by Career/Technical Program of Study

Type of Program	Percentage of Students Participating	Science Mean Score	<i>HSTW</i> Goal	Difference Between Mean and the Goal +/-
			299	
			299	
			299	
			299	
			299	
			299	
			299	

Topic 6: Quality Instruction—Focusing on Academic Standards, Integration and Engagement
[Pages 14-18 in the Benchmarks Document will also be reviewed.]

Please have department heads or the school leadership team identify whether these practices are in place.

Connecting school-based data to *HSTW* findings

Table 6A: Focus on Literacy—Place a Check in the appropriate column:

School-based data	<u>YES</u>	<u>NO</u>
On your state assessment(s) and college-placement (ACT, SAT) data results for <u>reading, language arts and/or writing</u>		
<ul style="list-style-type: none"> Is one group (gender, ethnic, socio-economic) progressing at a faster or slower rate than others? What are the differences in each group's achievement based on classroom experiences/opportunities? 		
All English/language arts courses have been aligned to state and national standards.		
All English/language arts teachers have identified the essential standards that students need to know, be able to do and understand.		
Common end-of-unit, end-of-grading period and end-of-course exams are used.		
All English/language arts teachers are qualified with depth of content knowledge and are certified in the content area.		
Master teachers teach ninth and tenth grade English/language arts courses.		
The number of English/language arts courses/sections taught by non-certified teachers		
Course placement practices focus on placing at least 85 percent of students in college-preparatory-level English/language arts courses than in lower level courses.		
Students are required to pass a literacy exam as part of their career/technical program		
Emphasis on literacy across-the-curriculum		

Table 6B: Focus on Numeracy—Place a Check in the appropriate column:

School-based Data	<u>YES</u>	<u>NO</u>
On your state assessment(s) and college-placement (ACT, SAT) data results for <u>mathematics:</u>		
<ul style="list-style-type: none"> Is one group (gender, ethnic, socioeconomic) progressing at a faster or slower rate than others? What are the differences in each group's achievement based on classroom experiences/opportunities? 		
All mathematics courses have been aligned to state and national standards.		
All mathematics teachers have identified the essential standards that students need to know, be able to do and understand.		
Common end-of-unit, end-of-grading period and end-of-course exams are used.		
All mathematics teachers are qualified with depth of content knowledge and are certified in the content area.		
Master teachers teach ninth and tenth grade mathematics courses.		
The number of mathematics courses/sections taught by non-certified teachers		
Entering ninth-grade students have completed solid pre-Algebra or Algebra I course in grade eight.		
Course placement practices focus on placing at least 85 percent of students in advanced- level mathematics courses rather than in lower-level courses.		

Students are required to pass a mathematics exam as part of their career/technical program (especially in those programs with a strong mathematics base).		
Emphasis on numeracy across-the-curriculum		

Table 6C: Focus on Integration—Place a check in the appropriate column.

Additional School-based Data	YES	NO
Do mathematics and science teachers use real-world problems?		
Do career/technical teachers require students to read and use mathematics?		
Do students complete a senior project that involves the use of reading, writing and mathematics?		
Are students involved in work-site learning receive instruction on communication and mathematics?		
Is there is time in the current situation for teachers to plan and carry out integrated activities?		
Do teachers receive staff development on integration?		
Is integration is a common practice at the school.		
Do you disaggregate state assessment results in reading, mathematics and science for career/technical students?		
Does your school and/or state require each program to give career/technical exams, such as industry exams, state skill assessments, NOCTI, etc., to career/technical completers?		
Does the career/technical exam count as part of the student's grade?		
Are students required to produce a product and explain it?		
Are students required to present a report before a panel of judges?		
Does each career/technical course have a mathematics-related textbook?		

Topic 7: Supporting Students—Guidance, Advisement and Transitions

[Pages 19-21 of the Benchmarks Document will also be reviewed.]

Table 7A: Guidance and Advisement Opportunities—Provide a Brief Description for Each

Advisory Description:	Registration Procedure:	Actions to Increase Parental Involvement:

Table 7B: Emphasis on Middle School to High School Transition

Does your school require students below the readiness level to:	Yes	No
Attend summer school?		
Take a double dose of English/reading?		
Take a double dose of mathematics?		
Attend support classes? (i.e. Summer Bridge Enhancement Classes)		

Table 7C: Emphasis on High School to Postsecondary Transition

Does your school:	Yes	No
Have a procedure to identify students who are not ready for postsecondary studies? (ACT/SAT scores, local postsecondary entrance exams, etc.)		
Provide students with a remedial or developmental postsecondary course on your campus?		
Require students not meeting ACT/SAT goals to take additional mathematics and English courses?		
Offer credit recovery options to help students graduate on time?		